

Interview for N284S Accident located near Marathon, Texas on 8 August 2020

Attendees: Mr. George Ezell – Pilot
Mr. Ron Cunningham – Attorney
Mr. Anthony Leinneweber FAA/IIC
Mr. Corey Wehmeyer – FAA/ASI

Notes/comments:

RC: Heard about a portion of the Main Rotor blade be found away from the accident but was wondering if we heard about an accidental discharge from the left rear seat. He heard about it from Mr. Ezell last week. Left rear passenger was not as familiar nor comfortable with handling the AK-47. It occurred from 0 to 15 minutes prior to impact.

GE: Morning of the flight he conducted all of the preflight checks and complete preflight all the way around the aircraft and didn't notice anything abnormal. He took off and was hovering about 95% power over a flat spot.

GE: Shooting radius with the belly being zero is 10 – 45 degrees out to the side(s). The weapon should never go above 45 degrees. No tissue samples taken that day. No landings.

GE: Aircraft was flying and operating fine as it did on the first day out which was Tuesday prior. No excess vibrations...no engine temps..."it was flying perfect"

GE: Inadvertent shot fired came from Doc position left rear seat. It was his third flight out and he noticed he was struggling with his weapon. He asked where the muzzle was pointed and Doc said straight out.

GE: Continued to fly the aircraft and about 8 miles from refueling is when a vibration came in from the rotor and it began slightly....then intensified very quickly 12-15 seconds. He noticed two different flight paths of the blades and all of a sudden vertical turned into a lateral and he knew the aircraft was coming down.

GE: Remembers hitting forward and very hard. He remembers trying to roll the throttle off. Heard the low rotor horn "it was loud" he pulled the circuit breaker to silence

GE: called for everyone to exit the aircraft. Noticed it was burning and remembered all of the coffee cans had live ammo and were going to "cook off". It all happened pretty fast.

GE: The part that keeps coming back to him was Doc accidental discharge. His opinion is blade delamination/separation. He doesn't know what caused it. Loaner blades from Van Horn and were installed March/2020...weren't due a track and balance until 300 hrs use. Not sure how many hours he put on them but it wasn't that much.

CW: Why did the replace trim tabs on the blades.

GE: Have to speak with his mechanic Peter Ramirez.

CW: Ask about vibrations. High frequency or 1 for 1.

GE: It was 1 for 1 but eventually turned into a diagonal. Tried to hit SOS button but vibration was too severe for him to touch.

CW: When you felt vibration. Were you setting up for landing or cruise?

GE: Cruising at 70 knots, straight and level headed to refuel point

CW: What percentage of torque do you usually fly at?

GE: 70% torque maybe a little less; when we are doing our surveys we are at 35-40 knots @ 40% torque

CW: What was your temp/density altitudes that day?

GE: Don't recall but it was heating up pretty good pushing around 100 degrees

CW: Did you feel the vibration was getting more violent like in your seat

GE: Yes it was getting there and that's what prepared to find a spot to land; it intensified all the way down to impact

CW: Did you have low rotor horn at any time while the vibrations were occurring

GE: I did not get a low rotor horn until after impact; I did not have any issue with power while conducting the left turn towards the landing spot

CW: commented about finding a piece of the rotor blade a bit up the hill from the impact spot. All the latch bolts were there, main rotor hub and blades were intact, with about 6 feet of blade attached, sent to NTSB for further testing

GE: vibration came in light; he made decision to go land; but vibration got worse; pulled the cyclic for control but aircraft kept dropping from 600-880 AGL; had about 15 gallons of fuel on board at the time.

CW: Do you run a particle separator on that aircraft?

GE: That has a particle separator. On the B-models it stays on all the time. L models you can control on/off

CW: Are you familiar with settling with power?

GE: Yes it wasn't same vibration that I would associate with settling with power; it was much worse; it was going down and remember looking out....it had two distinct blade paths; normally you see one blade path but I saw two

CW: No issue with tail rotor or engine power; oil temps?

GE: I did scan the gauges; everything was in the green; this aircraft was flying good until that time; last engine checks were +11

CW: Is there a mechanic based in the area that he uses

GE: No. The only thing due was a 50hr and 100hr lube that he had a kit for and was trained to use by Peter Ramirez. Trained by the DOM to do the lubes. All our aircraft have Van Horn blades both main and tail rotor are Van Horn

CW: Noticed the transmission had been replaced was it used/borrowed?

GE: It was out of another aircraft in their shop; ask Peter Ramirez

CW: Don't see any documentation for the re-torques?

GE: Ramirez has them; all maintenance conducted at the Tucson International Airport we have a hangar there

CW: When you do re-torques due you fly them off there or what?

GE: We do not put an aircraft out into the field; all flown off on local flights; like the 1-5 hr on the mast nut, it doesn't leave the area until completed re-torque is done

CW: Talked to Hernandez; he stated there was no gunning being conducted on this flight. Possible discrepancy from what we were told. He said the guns were unloaded, clips were stowed and ammo stored away

GE: There wasn't any shooting on private land just on state owned land; I can't tell you how many animals we took probably about 30-40

AL: Go back to the accidental discharge timeline; can you give us time elapsed and point of impact

GE: It was about 15 minutes as we were breaking off to go refuel; my main concern was where was the muzzle point and he said straight out; looking back at him he was pointing his finger straight out

AL: Could he have stated "straight up"

GE: No...it could have been about 10 degrees up but I took him for his word...straight out.

CW: You mentioned Doc was uncomfortable with the weapon process

GE: Yes. Example was when the first time he went to load his weapon he drop the magazine on the floor. I had this uneasy feeling with him. We tried to keep an eye on him but this was his first year of shooting.

CW: Was he trained up like all the other passengers?

GE: Yes. He understood all the rules of engagement and firearm safety protocols

CW: Were brass catchers used on the weapons?

GE: No we use brass deflectors and very little brass comes inside the aircraft; it all gets deflected down and falls on the terrain below

AL: Confirm the low rotor horn was going off after impact?

GE: Yes after impact and it was very loud. Only way to silence was to pull the master caution circuit breaker

CW: So the engine was still spinning at the time?

GE: Yes the engine was still running

CW: Do you remember if the main rotor was still turning?

GE: I really can't tell you if it was

CW: Discussion on the two parts recovered and sent to NTSB (Portion of MRB and short driveshaft extension) Also brought up the hole in the top portion of the transmission. Stated he didn't think the hole was caused by an accidental discharge since it would have to pass through all the gears to get that far.

GE: I don't think it did either. I agree with you on that.

CW: Tail rotor gear box was free moving; ultimately need to put blades back together to determine if there is a gun shot through the blade. The piece recovered didn't give me that impression. It could have hit the ground and spit that portion up the hill.

GE: I didn't associate the inadvertent shot being the cause. He doesn't know. But he knows something caused the main rotor blade to delaminate.

CW: Brought up the Part 91 and Part 135 asking about the Part 91 under state contract.

GE: It is a state contract; we do about 160 of flying for New Mexico a year. We are flying in areas typically where a Part 135 wouldn't be flying in. Low airspeeds, low contours to the earth often around 100 feet from the ground and flying up canyons where they land in unimproved areas.

CW: There seems to be a difference between FSDO. The contract is pretty clear you will be operating under rule Part 135. The FSDO in Scottsdale looks at it Part 91 and trying to figure out the differences.

GE: We do 135 flights for state also but they want the pilots trained to Part 135 and maintenance under Part 135. Mentioned the landing in unimproved areas especially when taking tissue samples from the Aldad.

AL: Asked about his flight hours; what total hours specific to Big Horn Sheep surveys

GE: he has done surveys in both the L and B models and probably has over 2500 hours, surveys in Alaska, New Mexico and Southern Utah.

CW: asked about the cell phone he returned

GE: confirms he did get his cell phone back; asked about a 9mm that was left behind

CW: left at the scene; pretty burned up / destroyed

GE: He will be released this Saturday from the Cobalt Rehab in

AL: asked Mr. Cunningham if he we answered his questions regarding the location and discovery of the main rotor blade piece we sent into NTSB.

RC: Yes he was.

END